



Essential Services Commission

GPO Box 2605
Adelaide SA 5001
Australia
Attention: Con Carellas, Principal Advisor

27/01/2017

Dear Con,

Re: Issues Paper – Inquiry into licensing arrangements under the Electricity Act 1996 for inverter-connected generators

Tilt Renewables' vision is to be a leading developer and owner of renewable generation in Australia and New Zealand. Tilt Renewables has seven operational wind farms located in Australia and New Zealand. These have an operating capacity of 582MW, representing approximately 11% of market share of installed wind capacity in Australasia. Specific to South Australia, Tilt Renewables is the owner and operator of Snowtown Wind Farm – Stages 1 and 2. Tilt Renewables is also developing Palmer Wind Farm, 50km east of Adelaide, as part of its portfolio.

Please accept this letter as Tilt Renewables' submission on the Commission's Issue Paper guiding its Inquiry into licensing arrangements for inverter-connected generators.

Background

The Commission has based its existing licence conditions on its advice from AEMO and its predecessor (in previous reviews). For this Inquiry, AEMO has provided initial advice to the Commission. AEMO had proposed to provide a final report to the Commission by 23 December 2016 but that advice was not forthcoming due to resourcing being diverted into critical, unforeseen works.

Tilt Renewables notes that the AEMO initial report had little in the way of technical information or discussion. Tilt Renewables cautions the Commission against making decisions on its licensing requirements without sufficient, detailed technical analysis followed by a wider consultation.

Specific Matters on which stakeholders' views are sought

Tilt Renewables provides the following discussion on the six questions of interest presented by the Commission.

Q1 Should the Commission continue to require the existing special conditions?

The Generator Performance Standards (GPS) defined for generator connection in the National Electricity Rules were designed with the joint concepts of flexibility and system security in mind. They describe:

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- Automatic Access Standards (AAS), which if met avoid the need for negotiation between the NSP and the generator,
- Minimum Access Standards (MAS), which if not met, preclude the connection of the Generator, and
- Negotiated Access Standards (NAS), which allow generators to negotiate with NSPs where an AAS cannot be reached and the system security would not be reduced by the NAS in question

The NER also discusses the negotiating frameworks for each of the GPS clauses. When negotiating the GPS with a generator, the NSP has the opportunity to assess the system security impacts of the generator's proposed GPS. AEMO also has oversight of the GPS. If the due diligence applied to the GPS by the NSP or AEMO determines that a higher standard is required, the NAS is adjusted – and may be required to be upgraded to an AAS – as the need is demonstrated.

The existing special conditions take away the flexibility of the NER unnecessarily resulting in the installation of assets required to meet the licence conditions but that are never used or are over-sized. That is not an efficient use of investment capital.

For instance, the AAS requirement for reactive power includes that the generator be able to absorb reactive power at its full capability when the voltage is at 90% of nominal. Absorbing reactive power has the effect of reducing voltage. No power system operator would want a generator to actively try to reduce the voltage when it was already at its lowest (normal) allowable level. The licence conditions therefore lead to a requirement to size absorbing reactive equipment based on an operating requirement that will never exist (because at low voltages, a system operator will require injection, not absorption of reactive power). A similar argument applies to high voltages (110% voltage). That is an inefficient use of capital and it does not provide any benefit to the South Australian system.

Requiring the installation of assets that are oversized leads to an inefficient investment.

Tilt Renewables is of the opinion that the Commission should not continue to require the existing special conditions unless it can demonstrate that the agreed performance standards that result from the NER negotiation process would fail to deliver the required level of system security in South Australia. Tilt Renewables is of the opinion that the benefit to South Australia of the special conditions has not been demonstrated by adequate technical investigation. The special conditions should not continue to be applied.

Q2 Should those licence conditions be varied?

Tilt Renewables is of the opinion that, if and only if the Commission determines that they are still required, the licence conditions should be varied. As discussed in its response to Q1, Tilt Renewables has provided one example of where the licence conditions result in assets being sized to a level that will never be used. Licence conditions that require greater investment in infrastructure but deliver no benefits are economically inefficient and do not deliver value to South Australia.

If the Commission demonstrates that some of the special conditions are required to meet the system security required in South Australia, it is clear that the existing special conditions require excessive investment. They should be varied to ensure that inefficient investment is avoided.

Q3 Should licence conditions be made to apply both to prospective and existing licensees?

Generally speaking, changes to licencing that would require existing generators to undertake further unexpected investment would have a negative effect on the viability of the existing projects. It would also result in an appearance of increased sovereign risk within South Australia. Companies investing in a jurisdiction expect minimal adverse impacts from changes introduced by government, particularly without clear evidence that the changes are required for the

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overall benefit of that jurisdiction.

If licence conditions reduced the technical requirements on an existing licensee, there may be a small reduction in operating expenditure should some equipment no longer require maintenance or replacement.

Tilt Renewables would not generally support applying changes to licence conditions retrospectively.

Q4 Should generation licence holders be required to upgrade or refurbish plant and equipment to meet the licence conditions of the day?

As per the response to Q3, Tilt Renewables does not support the retrospective application of licence conditions that result in an increased investment in operating plants. Tilt Renewables notes that if the technology is replaced or upgraded at the end of the generator's life then there would be a requirement under the NER to re-negotiate the GPS. As discussed in earlier paragraphs, Tilt Renewables is yet to see evidence that such GPS negotiations would fail to deliver the required level of system security for South Australia. Should the Commission demonstrate a need for special conditions to the licences, they could potentially be re-considered at times of significant technology upgrade or replacement.

Q5 Do you have any comments or views on AEMO's preliminary report?

Tilt Renewables considers that the initial report is insufficient in detailed studies to enable the Commission to make any decisions. Tilt Renewables reiterates that the justification of the inclusion of special conditions to the licences should be contingent on the Commission demonstrating that the NER would not deliver system security for South Australia. The AEMO initial report did not demonstrate such a failure of the NER.

Q6 Are there any other matters relevant to the Inquiry that the Commission should consider?

Not at this time.

Tilt Renewables thanks the Commission for the opportunity to contribute to the discussion around licensing in South Australia.

Yours sincerely,

A handwritten signature in blue ink that reads "S Fyfield".

Sam Fyfield (by email)
Connection Specialist
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